

Summary of the Proposed Watershed Protection Program  
**EL CORTE DE MADERA CREEK OPEN SPACE PRESERVE**

**Background**

El Corte de Madera Creek Open Space Preserve encompasses 2,788 acres in the upper headwaters of the San Gregorio Creek watershed. This watershed provides critical habitat for steelhead trout and coho salmon, both federally threatened species on California's Central Coast. These fishes have experienced dramatic population declines due to water diversion projects and from sedimentation associated with road construction, mining, grazing, and timber harvesting. San Gregorio Creek has been listed as "sediment-siltation impaired" under the Clean Water Act, and is under the regulatory authority of the San Francisco Bay Regional Water Quality Control Board to protect water quality. Similarly, the California Department of Fish and Game and the National Marine Fisheries Service are responsible for ensuring protection of these species on California's Central Coast under the umbrella of the Endangered Species Act.

The Midpeninsula Regional Open Space District (District) is committed to working in partnership with these resource agencies to protect and restore the ecological integrity of the watershed in balance with the low-intensity recreational use of the preserve. Given El Corte de Madera Creek Open Space Preserve's location in the upper headwaters of this sensitive watershed, the network of poorly designed logging roads, and the popularity of its trails, the District initiated a comprehensive assessment of the preserve's roads and trails to identify sources of erosion. Based on recommendations outlined in this assessment (prepared by Tim Best, Certified Engineering Geologist) and subsequent input from the resource agencies, District staff have prepared a Draft Watershed Protection Program for El Corte de Madera Creek Open Space Preserve.

**El Corte de Madera Creek Open Space Preserve Watershed Protection Program**

The purpose of the Watershed Protection Program is to protect and restore watershed integrity while maintaining opportunities for year-round multiple use recreation and environmental education. The Draft Watershed Protection Program includes four elements: substantial physical improvements to the preserve's trail system for long-term erosion control, changes to the Trails Plan (part of the preserve's Use and Management Plan), long-term maintenance and monitoring activities, and environmental education and outreach. These elements are summarized below.

Physical Improvements Design and Upgrades to the Roads and Trails

Implement corrective measures at potential sources of road and trail surface erosion, such as:

- Installing measures to control erosion by directing storm water runoff off the trail network quickly and without creating large concentrations of water.
- Reducing sediment reaching the aquatic environment as a result of trails located adjacent or close to streams by hardening the trail surface.
- Preventing episodic erosion of stream crossings by installing larger culverts, rocking stream fords, or constructing footbridges.
- Modifying the design of steep trails (over 15%) to help reduce the speed of mountain bicyclists, which will prevent or reduce erosion created when brakes are locked up.
- Narrowing road widths to the minimum necessary for patrol, emergency response, and maintenance activities, thus reducing the overall surface area exposed to the weathering and erosive effects of rainfall. Trails proposed for narrowing are portions of El Corte de Madera Creek, Fir, Tafari, Lawrence Creek, and, optionally, Virginia Mill and Spring Board Trails.

### Changes to the Trails Plan to Reduce Erosion

A number of locations present particularly difficult design challenges that require more than simple upgrades or physical improvements to reduce erosion to a low level. These locations are generally the steepest trails, the closest to streams, or the most difficult or costly to maintain. The Draft Watershed Protection Program proposes to close and restore these trails, constructing new trail segments that provide an equivalent or better trail experience in a less erosion prone location. Trails proposed for closure and restoration are:

- Crossover Trail, with a new alternate trail between Timberview and Methuselah Trails.
- Lower Fir Trail, with a new alternate trail between the vista point and the Methuselah Trail.
- Short segments of Blue Blossom, Virginia Mill, and Leaf Trails.
- Giant Salamander Trail.

### Preserve Maintenance and Monitoring

- Adoption of a formal maintenance plan that includes techniques to reduce sediment delivery to aquatic systems, such as reducing vehicular traffic to drier periods.
- Routine inspections of the trails and drainage facilities prior to the winter season, during or immediately following storm events, and at the end of the winter season.
- Development of a pilot in-stream sediment monitoring program.

### Environmental Education and Outreach

- Installing interpretive signage to enhance visitor understanding of watershed protection needs.
- Producing a brochure and handouts with information about the preserve's natural resources and the District's watershed protection efforts.
- Producing a detailed preserve trails map.
- Collaborating with mountain bicycling clubs to provide assistance in ensuring trail etiquette.
- Training District staff and volunteers in watershed protection methods.

The attached matrix describes the proposed details of these watershed protection elements as applied to the preserve's trail system.

### **Implementation**

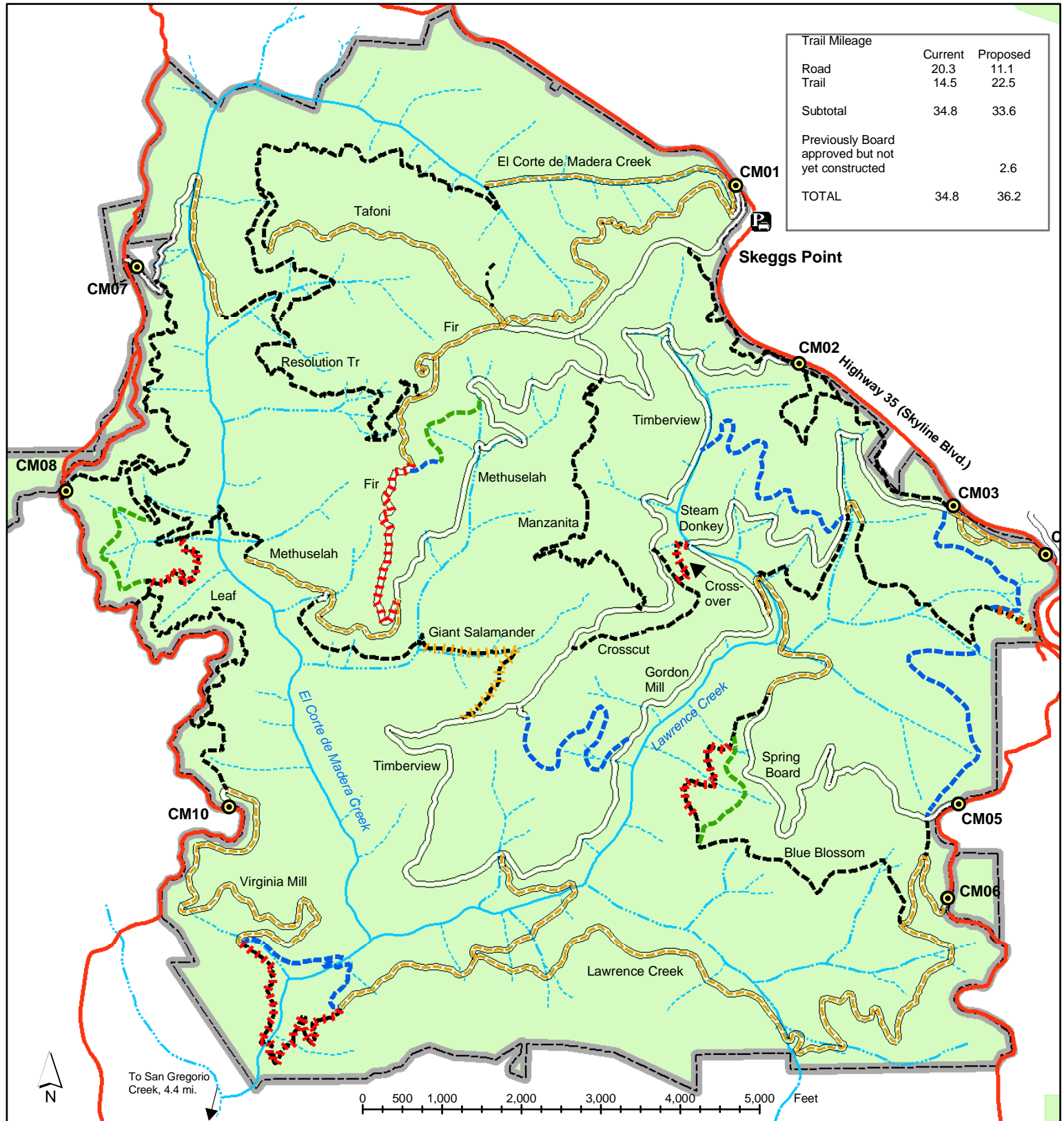
The District's intention is to complete these high priority erosion control projects within a three-year timeframe. The cost is anticipated to range between \$750,000 and \$1,000,000. District staff will pursue grant funding from the resource agencies to offset these costs, and will work with volunteers to assist in trail construction projects. These projects will impact visitors' use of the preserve and temporary trail closures will be necessary; the District will make every effort to phase the projects in such a way that portions of the preserve will remain open at any given time.

### **Share Your Ideas!**

For more information or to share your ideas, please contact Matt Freeman, Open Space Planner, at (650) 691-1200 or by e-mail at [watershedinfo@openspace.org](mailto:watershedinfo@openspace.org). Send your written comments to:

Midpeninsula Regional Open Space District  
Attn: El Corte de Madera Creek Watershed Protection Program  
330 Distel Circle  
Los Altos, CA 94022

**El Corte de Madera Creek Open Space Preserve  
Watershed Protection Program  
Preliminary Use and Management Plan Recommendations, November 19, 2003**



**Roads and Trails**

- Paved Road
- Multiple Use Unpaved Patrol Road
- - - Multiple Use Trail
- - - • Hiking-only Trail
- - - Proposed Trails / Realignments (Board-Adopted in 1996-98)

**Watershed Protection Recommendations**

- |||| Close and Restore
- |||| Reconstruct and Realign Trail (Further Study Required)
- - - Proposed Realignment
- - - Reduce from Road-width to Trail-width

**El Corte de Madera Creek Open Space Preserve**  
**Watershed Protection Program**  
 Summary of Proposed Changes to Preserve Use and Management Plan, November 19, 2003

**Trail Planning Assumptions**

- The project goal is to reduce erosion and sedimentation to the maximum extent, while providing for visitor safety, emergency vehicle access, and multiple-use recreation opportunities
- All roads, trails, stream crossings, and other drainage facilities will be upgraded according to the standards outlined in the report prepared by Tim Best (2002)
- All new trails will be constructed to a very high standard, per Best (2002) recommendations and the IMBA guidelines, to ensure long-term erosion control
- Trail realignments will be constructed to approximately 2-foot width to minimize environmental impact, generally at 10% max grade, using techniques to reduce speed
- The District will continue to employ seasonal closures at sensitive locations to prevent erosion during wet conditions and to reduce maintenance needs
- Roads proposed for conversion to trail-width will be reduced to approximately 4-foot width to accommodate ATV travel
- Patrol roads will be upgraded to facilitate year-round emergency access, although they will normally not be driven once 4" rainfall has been recorded at Skylonda Fire Station

<b>Trail Name</b>	<b>Type</b>	<b>Physical Condition</b>	<b>Other Issues (Safety / Recreation Value)</b>	<b>Recommendation</b>
Leaf Trail	single track	Very steep, erosive, lower portion resulting in sedimentation		Close and restore steep section of South Leaf; construct bypass trail upslope
Fir Trail	patrol road	Very steep, highly erosive, difficult to drive, site of numerous accidents	Fall-line location would require extensive re-route to maintain as high quality trail; grade exceeds 30% in sections	Close and restore below intersection with Resolution Trail. Construct trail from vista point to Methuselah trail to maintain loop. Reduce section between Resolution and Tafari to trail-width to minimize erosion.
Giant Salamander	single track	Highly erosive steep sections and close proximity to creek results in sedimentation	Provides key connection between two halves of Preserve creating mid-range loop for visitors; one of the four most popular trails in Preserve	Realign steep portions of trail; reconstruct segment near creek; reducing to 2-4 foot width; install numerous waterbars; harden with rock; replace culvert crossing with bridge
Crossover Trail	single track	Steep, highly eroded, resulting in sedimentation	Provides key connection between Timberview and Gordon Mill, and provides short loop opportunities for hikers and cyclists; location does not provide for construction of reasonable bypass trail.	Close and restore; construct new trail between Timberview and Gordon Mill (two possible alignments were approved by the Board in 1998)
Blue Blossom Trail	single track	Steep, badly eroding		Close and restore steep section; construct bypass trail upslope
Virginia Mill Trail (single track section)	single track	Some erosion and sedimentation, very poor stream crossing		Close and restore; construct bypass using former skid trail; install 6' wide fiberglass footbridge
El Corte de Madera Creek Trail	patrol road	Location adjacent to Creek resulting in high sedimentation	One of the four most popular trails in Preserve	Reduce from road-width (12') to trail width (2-4') and conduct extensive streambank restoration; maintain section west of Creek as patrol road to ensure easement access to Creek.

<b>Trail Name</b>	<b>Type</b>	<b>Physical Condition</b>	<b>Other Issues (Safety / Recreation Value)</b>	<b>Recommendation</b>
Tafoni Trail	patrol road	Generally good condition	Unnecessary as patrol road as it duplicates Fir Trail	Reduce to trail width to minimize erosion and to create a short-range, easy single-track loop
Methuselah Trail	patrol road	Generally good condition, with exception of steep pitches and poor stream crossings	Section west of Fir Trail has limited value as patrol road as it dead ends at single-track approach to Creek	Reduce to trail-width at one of two landings near Fir Trail
Spring Board Trail	patrol road	Lower portion in poor condition, resulting in high sedimentation	Provides key access from Bear Gulch Road to Gordon Mill	Maintain as patrol road from Bear Gulch to Blue Blossom intersection; reduce remainder to trail width to prevent sedimentation and reduce long-term maintenance costs; in conjunction with proposed ridge trail, creates single-track loop opportunity
Virginia Mill Trail (patrol road section)	patrol road	Generally good condition, with exception of steep sections	Provides for vehicle access towards Creek, but limited value as patrol road due to dead-end at single-track section of trail	Reduce to trail width. In conjunction with proposed changes in Lawrence Creek Trail and proposed Ridge Trail section, provides for Preserve-wide perimeter trail.
Lawrence Creek Trail	patrol road	Fair condition with many year-round wet spots and poor stream crossings resulting in moderate sedimentation	Limited value as patrol road as it is open to vehicular traffic only a few months per year. Spring Board provides alternative access from Bear Gulch.	Reduce to trail width to reduce sedimentation and overall maintenance costs. Alleviates need for vehicle bridge